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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,542	12/14/2000	Paul G. Wilson	13551	6558

7590 08/11/2004

DOWELL & DOWELL, P.C.
Suite 309
1215 Jefferson Davis Highway
Arlington, VA 22202

EXAMINER

HOM, SHICK C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/735,542

Applicant(s)

WILSON ET AL.

Examiner

Shick C Hom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 19-27 and 29-31 is/are rejected.
- 7) ☒ Claim(s) 18, 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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Claim Objections

3. Claims 2-19 and 21-28 are objected to because of the following informalities: In claims 2-19 line 1, the words "A method" seem to refer back to "the method" recited in claim 1 line 1. If this is true, it is suggested changing "A method" to ---The method---. Likewise, in claims 21-28, delete "A multi-service gateway" and insert ---The multi-service gateway---. In claim 6 line 2 delete "a connection" and insert ---the connection---. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. Claims 21-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 21 line 5 which recite "the resource pool" lack clear antecedent basis because no resource pool have been previously recited in the claims and therefore the limitation is not clearly understood.

Claim 22 is rejected under 35 U.S.C. 112, second paragraph because it depends from rejected claim 21.

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Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-9, 11-12, 16, 19-22, 26, and 29-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Harris (6,167,028).

Regarding claim 1:

Harris disclose the method of processing a request for a connection through a multi-service gateway (see col. 7 line 40 to col. 8 line 26 which recite request for connection and col. 10 lines 15-39 which recite using a gateway), comprising: allocating resources from a resource pool (see col. 7 lines 50-

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62 which recite the resource pool) as a function of: a usage level of the pool (see col. 4 lines 25-44 which recite control being a usage parameter), a priority level of the connection request (see col. 7 lines 50-62 which recite the traffic priority) and a pool occupancy threshold (see col. 4 lines 25-44 which recite level of QoS being established for connections).

Regarding claim 20:

Harris disclose the multi-service gateway (see col. 7 line 40 to col. 8 line 26 which recite request for connection and col. 10 lines 15-39 which recite using a gateway), comprising: a plurality of packet-switched ports; a pool of port processing software entities (PPSEs) (see col. 7 lines 50-62 which recite the resource pool), each PPSE having sufficient capacity to provide processing for any of the packet-switched ports; and a resource manager adapted to execute a method comprising receiving connection requests and, if a particular connection request involves at least one of the packet-switched ports, allocating a subset of the PPSEs in the pool for satisfying the particular connection request, as a function of a priority level of the particular connection request (see col. 7 lines 50-62 which recite the traffic priority), as a function of a usage level of the pool (see col. 4 lines 25-44 which recite control being a usage parameter), and as a function of a pool occupancy

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threshold (see col. 4 lines 25-44 which recite level of Qos being established for connections).

Regarding claim 29:

Harris disclose the multi-service gateway (see col. 7 line 40 to col. 8 line 26 which recite request for connection and col. 10 lines 15-39 which recite using a gateway), comprising: means for receiving a connection request means for determining a usage level of resources in a resource pool in the multi-service gateway (see col. 7 lines 50-62 which recite the resource pool); and means for allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold (see col. 4 lines 25-44 which recite control being a usage parameter), otherwise determining a priority level of the connection request and allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level (see col. 7 lines 50-62 which recite the traffic priority).

Regarding claim 30:

Harris disclose the computer-readable media tangibly embodying a program of instructions executable by a resource manager (see col. 10 line 53 to col. 11 line 8 which recite the software resources) to perform a method of processing a received

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request for a connection through a multi-service gateway (see col. 7 line 40 to col. 8 line 26 which recite request for connection and col. 10 lines 15-39 which recite using a gateway), the method comprising: determining a usage level of resources in a resource pool in the multi-service gateway (see col. 7 lines 50-62 which recite the resource pool); and allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold (see col. 4 lines 25-44 which recite control being a usage parameter), otherwise determining a priority level of the connection request and allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level (see col. 7 lines 50-62 which recite the traffic priority).

Regarding claim 31:

Harris disclose the at least one computer programmed to execute a process for processing a received request for a connection through a multi-service gateway (see col. 7 line 40 to col. 8 line 26 which recite request for connection and col. 10 lines 15-39 which recite using a gateway), the process comprising: determining the usage level of a resource pool in the multi-service gateway (see col. 7 lines 50-62 which recite the resource pool); and if the usage level is below the pool

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occupancy threshold, allocating resources from the resource pool to satisfy the connection request (see col. 4 lines 25-44 which recite control being a usage parameter); if the usage level is not below the occupancy threshold, allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level (see col. 7 lines 50-62 which recite the traffic priority).

Regarding claims 2, 21:

Harris disclose wherein allocating resources from the resource pool comprises: determining the usage level of the resource pool; and the if the usage level is below the pool occupancy threshold, allocating resources from resource pool to satisfy the connection request; if the usage level is not below the occupancy threshold, allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level (see col. 7 line 40 to col. 8 line 26 which recite resource pool allocation using priority).

Regarding claim 3:

Harris disclose receiving the connection request prior to allocating resources from the resource pool (see col. 7 lines 40 to col. 8 line 26).

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Regarding claims 4, 22:

Harris disclose receiving the connection request from a connection server/broker prior to allocating resources from the resource pool (see col. 3 lines 26-38 which recite the source sends the request to the network control element to establish a connection clearly reads on the connection server/broker).

Regarding claim 5:

Harris disclose determining the priority level the connection request (see col. 4 lines 25-44 which recite the priority level of the request).

Regarding claim 6:

Harris disclose wherein the priority level of a connection request is a function of the type of traffic carried by the requested connection (see col. 5 lines 9-20 which recite the varying priorities of traffic from different type of equipments).

Regarding claims 7, 8:

Harris disclose wherein the pool occupancy threshold is a function of the priority level of the connection request (see col. 4 lines 25-44 which recite level of Qos being established for connections including the priority levels).

Regarding claim 9:

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Harris disclose wherein each connection request is associated a type of traffic selected from the group consisting of originating, terminating, feature and progress (see col. 5 lines 9-20).

Regarding claim 11:

Harris disclose wherein the resources are software resources for processing packets (see col. 10 line 53 to col. 11 line 8 which recite the software resources).

Regarding claim 12:

Harris disclose wherein the resources are port processing resources (see col. 12 lines 57-65 which recite the hardware for interfacing clearly reads on the port).

Regarding claims 16, 26:

Harris disclose if no resources are allocated to satisfy the connection request, blocking the connection request (see col. 1 lines 40-49 which recite that it is know to buffer the request).

Regarding claim 19:

Harris disclose selecting the pool occupancy threshold to achieve a probability of blocking that is less than a pre-determined value (see col. 1 lines 40-49 which recite statistical multiplexing on a probabilistic bases).

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Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (6,167,028) in view of Thomas et al. (20010001000).

Regarding claim 10:

For claim 10, Harris discloses the method described in paragraph 6 of this office action. For claim 10, Harris discloses all the subject matter of the claimed invention with the exception of wherein the priority level of progress traffic is greater than the priority level of feature traffic, which is greater than the priority level of terminating traffic, which is greater than the priority level of originating traffic as recited in claim 10.

Thomas et al. from the same or similar fields of endeavor teach that it is known to provide the priority level of progress traffic being greater than the priority level of feature traffic, which is greater than the priority level of terminating traffic, which is greater than the priority level of originating traffic (see paragraph 0048 which recite priority being given to terminating gateways connected to the same network as the originating gateway). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the priority level of progress traffic being greater than the priority level of feature

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traffic, which is greater than the priority level of terminating traffic, which is greater than the priority level of originating traffic as taught by Thomas et al. in the communications method of Harris. The motivation for provide the priority level of progress traffic being greater than the priority level of feature traffic, which is greater than the priority level of terminating traffic, which is greater than the priority level of originating traffic as taught by Thomas et al. in the communications method of Harris being that it provides more cost efficiency and quality of service for the system.

10. Claims 13-15, 17, 23-25, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (6,167,028) in view of Lancelot et al. (6,026,086).

Regarding claims 13-15, 17-18, 23-25, and 27-28:

For claims 17, 27, Harris disclose reporting blockage of the connection request to a connection server/broker (see col. 3 lines 26-38 which recite the source sends the request to the network control element to establish a connection clearly reads on the connection server/broker).

For claims 13-15, 23-25, Harris disclose the gateway and method described in paragraph 6 of this office action. For claims 13-15, 23-25, Harris discloses all the subject matter of

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the claimed invention with the exception of wherein the resources are adapted to perform conversion of a signal from a circuit-switched format to a packet-switched format as in claims 13, 23; wherein the circuit-switched format is a time-division-multiplexed (TDM) format as in claims 14, 24; wherein the packet-switched format is an asynchronous transfer mode (ATM) format or an Internet Protocol (IP) format as in claims 15, 25.

Lancelot et al. from the same or similar fields of endeavor teach that it is known to provide wherein the resources are adapted to perform conversion of a signal from a circuit-switched format to a packet-switched format (see col. 3 line 45 to col. 4 line 9); wherein the circuit-switched format is a time-division-multiplexed (TDM) format; wherein the packet-switched format is an asynchronous transfer mode (ATM) format or an Internet Protocol (IP) format (see col. 4 lines 10-58). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide wherein the resources are adapted to perform conversion of a signal from a circuit-switched format to a packet-switched format; wherein the circuit-switched format is a time-division-multiplexed (TDM) format; wherein the packet-switched format is an asynchronous transfer mode (ATM) format or

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an Internet Protocol (IP) format as taught by Lancelot et al.

in the communications method and gateway of Harris.

The resources being adapted to perform conversion of a signal

from a circuit-switched format to a packet-switched format;

wherein the circuit-switched format is a

time-division-multiplexed (TDM) format; wherein the packet-

switched format is an asynchronous transfer mode (ATM) format or

an Internet Protocol (IP) format can be implemented by providing

the converter of Lancelot et al. in the gateway of Harris. The

motivation providing resources being adapted to perform

conversion of a signal from a circuit-switched format to a

packet-switched format; wherein the circuit-switched format is a

time-division-multiplexed (TDM) format; wherein the packet-

switched format is an asynchronous transfer mode (ATM) format or

an Internet Protocol (IP) format as taught by Lancelot et al. in

the communication gateway and method of Harris being that it

provides the added feature of being able to connect to the

Internet.

Allowable Subject Matter

11. Claims 18 and 28 would be allowable if rewritten to

overcome the objections, set forth in this Office action and to

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include all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bhatia et al. disclose a method for priority in terminating call setup.

Ghahremani et al. disclose multi-service network switch with modem pool management.

Lynch et al. disclose a method and apparatus for configuring systems.

13. Any response to this nonfinal action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for Technology Center 2600 only)

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (2600 Receptionist at (703) 305-4750).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick Hom whose telephone number is (703) 305-4742. The examiner's regular work schedule is Monday to Friday from 8:00 am to 5:30 pm EST and out of office on alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao, can be reached at (703) 308-5463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

SH

August 7, 2004

Seema S. Rao
SEEMA S. RAO 8/19/04
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600